

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

|  |   |   |                  |
|--|---|---|------------------|
| Applicant's or agent's file reference<br>ICH-303 WO  | FOR FURTHER ACTION  |   | See item 4 below |
| International application No.<br>PCT/EP2004/006711   | International filing date (day/month/year)<br>22 June 2004 (22.06.2004) | Priority date (day/month/year)<br>26 June 2003 (26.06.2003) |                  |
| International Patent Classification (8th edition unless older edition indicated)<br>See relevant information in Form PCT/ISA/237 |   |   |                  |
| Applicant<br>ILFORD IMAGING SWITZERLAND GMBH   |   |   |                  |

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input checked="" type="checkbox"/> | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input checked="" type="checkbox"/> | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

|   |   |
|---|---|
|   | Date of issuance of this report<br>01 May 2006 (01.05.2006) |
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland | Authorized officer<br><br>Ellen Moyse                       |
| Facsimile No. +41 22 740 14 35  | Telephone No. +41 22 338 89 75                              |

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

# PCT

**Translation**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

**ICH-303 WO**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/EP2004/006711**

International filing date (day/month/year)

**22.06.2004**

Priority date (day/month/year)

**26.06.2003**

International Patent Classification (IPC) or both national classification and IPC

Applicant

**ILFORD IMAGING SWITZERLAND GMBH**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/006711

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/006711

Box No. II

Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/006711

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:
- ☐ paid additional fees
  - ☐ paid additional fees under protest
  - ☐ not paid additional fees
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:

There are two groups of inventions:

- 1) Claims 1-12: Optical carrier materials, comprising a carrier, an amplifier layer of nanocrystalline, nanoporous aluminium oxide and/or aluminium oxide/hydroxide and a luminescent layer.
- 2) Claim 13: Amplifier layer comprising nanocrystalline, nanoporous aluminium oxide and/or aluminium oxide/hydroxide.

The subject matter of independent claim 13 is already known from D1 (cf. the reasons for the present objection). The application thus fails to meet the requirement of unity of invention (PCT Rule 13.1), since there is no technical relationship among the subjects of the groups of dependent claims 1 and 13 involving one or more of the same or corresponding special technical features (PCT Rule 13.2).

4. Consequently, this opinion has been established in respect of the following parts of the international application:

- ☒ all parts
- ☐ the parts relating to claims Nos. \_\_\_\_\_

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/EP2004/006711

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

1. Statement

|                               |        |           |     |
|-------------------------------|--------|-----------|-----|
| Novelty (N)                   | Claims | 3-8       | YES |
|                               | Claims | 1-2, 9-13 | NO  |
| Inventive step (IS)           | Claims |           | YES |
|                               | Claims | 3-8       | NO  |
| Industrial applicability (IA) | Claims | 1-13      | YES |
|                               | Claims |           | NO  |

2. Citations and explanations:

Reference is made to the following documents:

- D1: C.XU ET AL.: "Photoluminescent blue-shift of organic molecules in nanometer pores"  
NANOTECHNOLOGY, Bd. 13, 2002, pages 47-50,  
XP002260708
- D2: US-A-6 156 419 (ZBINDEN FELIX ET AL) 5  
December 2000 (2000-12-05)

1. Novelty pursuant to PCT Article 33(2)

Document D1 describes nanoporous aluminium oxide which is coated with 8-hydroxyquinoline aluminium (Alq<sub>3</sub>) and is used in this form in optoelectronic devices, etc. (columns 1-7). The carrier and carrier material are implicitly included in the devices. Therefore, claims 1-2 and 9-13 are not considered novel.

2. Inventive step pursuant to PCT Article 33(3)

Dependent claims 3-8 do not appear to contain any additional features which, in combination with the

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/EP2004/006711

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

features of any claim to which they refer back, meet the PCT requirements for inventive step. The reasons are as follows:

- a) Claim 3: This claim includes only a variation in the quantity of nanoporous aluminium oxide. This cannot be considered to have any surprising effect.
- b) Claims 4-8: Document D2 describes the use of porous AlOOH in printable material for inkjet printing. The AlOOH is modified with lanthanum (2.2 mol% based on  $\text{Al}_2\text{O}_3$ ). The coating solution is mixed with 8g polyvinyl alcohol and applied to a transparent polyester carrier. The binder in the amplifier layer is film-forming (Example 1; claims). A person skilled in the art would consider it a routine approach to combine all the features listed here of D2 with D1. Therefore, the subject matter of claims 4-8 does not involve an inventive step.

**3. Objections under PCT Article 6**

- a) Claim 2: The value  $0.1 \text{ g/m}^2$  has no basis in the description
- b) Claim 4: The value 0.2 mol% has no basis in the description
- c) Claim 5: The value 10% by weight has no basis in the description